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TRANSMITTAL FORM

(To be used for all correspondence after initial filing)

Total Number of Pages in This Submission

Application Number	10/678,720
Filing Date	October 3, 2003
First Named Inventor	Robert C. Lam
Art Unit	1771/Conf. #6119
Examiner Name	Jennifer A. Steele
Attorney Docket Number	01168/BW00076

ENCLOSURES *(Check all that apply)*

- [✓] Fee Transmittal Form
  - [✓] Fee Attached
- [ ] Amendment/Reply
  - [ ] After Final
  - [ ] Affidavits/declaration(s)
- [ ] Extension of Time Request
- [ ] Express Abandonment Request
- [ ] Information Disclosure Statement
- [ ] Certified Copy of Priority Document(s)
- [ ] Reply to Missing Parts/ Incomplete Application
  - [ ] Reply to Missing Parts under 37 CFR 1.52 or 1.53
- [ ] Drawing(s)
- [ ] Licensing-related Papers
- [ ] Petition
- [ ] Petition to Convert to a Provisional Application
- [ ] Power of Attorney, Revocation Change of Correspondence Address
- [ ] Terminal Disclaimer
- [ ] Request for Refund
- [ ] CD, Number of CD(s) _____
  - [ ] Landscape Table on CD
- [ ] After Allowance Communication to TC
- [ ] Appeal Communication to Board of Appeals and Interferences
- [✓] Appeal Communication to TC **(Appeal Notice, Brief, Reply Brief)**
- [ ] Proprietary Information
- [ ] Status Letter
- [✓] Other Enclosure(s) (please Identify below):
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Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

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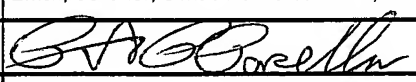
Signature			
Printed name	Patrick P. Pacella		
Date	Dec 19, 2008	Reg. No.	25,463

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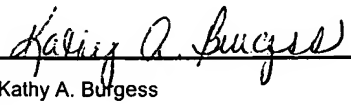
Signature			
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PTO/SB/17 (10-08)
Approved for use through 06/30/2010. OMB 0651-0032
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Effective on 12/08/2004.
Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL
For FY 2009

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT ($) 30.00

Complete if Known	
Application Number	10/678,720
Filing Date	October 3, 2003
First Named Inventor	Robert C. Lam
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METHOD OF PAYMENT (check all that apply)

☑ Check ☐ Credit Card ☐ Money Order ☐ None ☑ Other (please identify): Previously Paid Appeal Brief fee $510.00 paid 11/16/2007

☑ Deposit Account Deposit Account Number: 15-0825 Deposit Account Name: Owen & Owen

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

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FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

Application Type	FILING FEES Fee ($)	FILING FEES Small Entity Fee ($)	SEARCH FEES Fee ($)	SEARCH FEES Small Entity Fee ($)	EXAMINATION FEES Fee ($)	EXAMINATION FEES Small Entity Fee ($)	Fees Paid ($)
Utility	330	165	540	270	220	110	
Design	220	110	100	50	140	70	
Plant	220	110	330	165	170	85	
Reissue	330	165	540	270	650	325	
Provisional	220	110	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee ($)	Small Entity Fee ($)
Each claim over 20 (including Reissues)	52	26
Each independent claim over 3 (including Reissues)	220	110
Multiple dependent claims	390	195

Total Claims _____ - 20 or HP = _____ x _____ = Fee Paid ($) _____

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims _____ - 3 or HP = _____ x _____ = Fee Paid ($) _____

HP = highest number of independent claims paid for, if greater than 3.

Multiple Dependent Claims: Fee ($) _____ Fee Paid ($) _____

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is $270 ($135 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets _____ - 100 = _____ Extra Sheets _____ / 50 = _____ Number of each additional 50 or fraction thereof (round up to a whole number) x Fee ($) _____ = Fee Paid ($) _____

4. OTHER FEE(S)

	Fees Paid ($)
Non-English Specification, $130 fee (no small entity discount)	
Other (e.g., late filing surcharge): $510.00 previously paid; check $30.00	540.00

SUBMITTED BY

Signature	[signature]	Registration No. (Attorney/Agent) 25,463	Telephone 419-243-1294
Name (Print/Type)	Patrick P. Pacella		Date Dec 19, 2008

01168/BW00076

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of:

Robert C. Lam
Serial No: 10/678,720
Filed: October 3, 2003
For: FRICTION MATERIAL CONTAINING PARTIALLY CARBONIZED CARBON FIBERS

Exr. Jennifer A. Steele
Art Unit: 1771
Confirmation No.: 6119

Commissioner of Patents
and Trademarks
Washington, D.C. 20231

December 18, 2008

APPELLANT'S BRIEF ON APPEAL

Sir:

This brief on appeal is being filed in accordance with 37 C.F.R. §1.192 by Appellant in the matter of the above-identified patent application.

REAL PARTY IN INTEREST

The real party in interest is BorgWarner, Inc., 3850 Hamlin Road, Auburn Hills, MI 48326, the assignee of the present invention.

RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences which will directly affect or be directly affect or be directed affected by having a bearing on the Board's decision in the pending appeal.

STATUS OF CLAIMS

This appeal is based on the final rejection of claims 6 – 9, 12 – 13 and 29. Claims 23 – 28 are withdrawn and canceled. Claims 1 - 5, 10 – 11 and 14 – 22 are canceled. Only claims 6 – 9, 12 – 13 and 29 are pending in this application.

STATUS OF AMENDMENTS

A Response After Final Rejection was filed on September 23, 2008. Only Remarks were presented in the Response After Final. The claims were not amended. Only claims 6 – 9, 12 – 13 and 29 remain in the application. No amendments have been filed subsequent to the appealed final rejection.

SUMMARY OF CLAIMED SUBJECT MATTER

Only claim 6 is an independent claim.

Claim 6 recites a friction material comprising a fibrous base material impregnated with at least one curable resin (page 8, line 17), the fibrous base

material comprising a porous primary layer (page 7, line 16), and one secondary layer (page 7, line 19), the secondary layer comprising partially carbonized carbon fibers (page 7, line 22) on at least one surface of the primary layer (page 8, lines 7 – 9). The partially carbonized carbon fibers comprises 3% to about 90% of the surface area of the primary layer (page 16, lines 21 – 23). The secondary layer comprises about 5% to about 35%, by weight, of partially carbonized carbon fibers, based on the weight of the fibrous base material (page 7, lines 22 – 24 and page 24, lines 6 – 8). The partially carbonized carbon fibers are 65 to 90% carbonized (page 7, lines 20 – 21). The porous primary layer comprises a plurality of less fibrillated aramid fibers (page 7, lines 16 – 18) having a freeness of at least about 300 on the Canadian Standard Freeness (CSF) index (page 14, lines 25 – 27). Optionally one or more of the following: cotton fibers, carbon fibers, carbon particles, and, at least one filler material are present (page 7, lines 18 – 19).

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 6 – 9, 12 – 13 and 29 are patentably distinct under 35 U.S.C. §103(a) over Lam (EP 1203897) in view of Lam (US 0971151) in further view of Smith (US 5,965,658).

ARGUMENT

I. SUMMARY

Claims 6 – 9, 12 – 13 and 29 are patentably distinct over the combination of references in the recitation of the secondary layer comprising about 5% to about 35%, by weight, of partially carbonized carbon fibers, based on the weight of the fibrous base material, wherein the partially carbonized carbon fibers are 65 to 90% carbonized.

Lam '897 does not teach carbon fibers in the secondary layer. Lam '897 also does not teach the carbon fibers are partially carbonized carbon fibers that are 66 – 90% carbonized. The rejection attempts to add to Lam '897 what is not there.

Nowhere does Lam '897 disclose or suggest that the secondary layer of the friction material comprises carbon fibers.

Nowhere does Lam '897 disclose or suggest that the secondary layer of the friction material comprises partially carbonized carbon fibers.

Nowhere does Lam '897 disclose or suggest that the secondary layer of the friction material comprises 5% to 35%, by weight, of partially carbonized carbon fibers.

Lam '897 does not teach that the partially carbonized carbon fibers are 65 – 90% carbonized.

Clearly, Lam '897 is deficient.

The rejection concludes it would be obvious to employ carbon fibers in the secondary layers as of Lam '897 as taught by Lam '151 and that it would be obvious to employ partially carbonized fibers of Smith as substitute of the friction fibers and particles of Lam.

Applicant respectfully submits that no basis in fact or theory exists for making the numerous modifications needed to arrive at the claimed invention. The rearrangements of parts as suggested by the Examiner is not within the purview of one skilled in the art.

Applicant respectfully submits that in this case, a large subset of means may be known for solving the problem. In this case, given the infinite array of elements with which to start, one would not follow the exact route of the inventor. No showing has been made by the Examiner that one would follow the exact route taken by the inventor. If applying a means for solving a problem involves significant trial and error (testing) then a finding of obviousness is not warranted. See Ortho-McNeil v. Mylan Laboratories, 520 F.3d 1358 (Fed.Cir. 2008), where the Federal Circuit Court affirmed a finding of unobviousness.

II. CLAIMS 6 – 9, 12 – 13 AND 29 ARE PATENTABLY DISTINCT UNDER 35 U.S.C. §103(a) OVER LAM (EP 1203897) IN VIEW OF LAM (EP

0971151) IN VIEW OF SMITH (US 5,965,658)

Claims 6 – 9, 12 – 13 and 29 are patentably distinct over the combination of references in the recitation of the secondary layer comprising about 5% to about 35%, by weight, of partially carbonized carbon fibers, based on the weight of the fibrous base material, wherein the partially carbonized carbon fibers are 65 to 90% carbonized.

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Applicant respectfully submits that no basis in fact or theory exists for making the numerous modifications needed to arrive at the claimed invention. The rearrangement of parts as suggested by the Examiner is not within the purview of one skilled in the art.

Applicant respectfully submits that in this case, a large subset of means may be known for solving the problem. In this case, given the infinite array of elements with which to start, one would not follow the exact route of the inventor. No showing has been made by the Examiner that one would follow the exact route taken by the inventor. If applying a means for solving a problem involves significant trial and error (testing) then a finding of obviousness is not warranted. See Ortho-McNeil v. Mylan Laboratories, 520 F.3d 1358 (Fed.Cir. 2008), where the Federal Circuit Court affirmed a finding of unobviousness.

Applicant respectfully submits that one cannot rely on hindsight in reaching an obvious determination. It is essential that the decision maker forget what he or she has been taught by the claimed invention. One cannot use piecemeal reconstruction to arrive at the claimed invention.

To substitute carbon fibers of any kind for the carbon particles of Lam does not meet the "common sense" test of Teleflex let alone the Federal Circuit's "teaching, suggestion, motivation" test.

Appellant respectfully submits that the "common sense" test of KSR Int'l Co. v. Teleflex Inc. 127 S.Ct. 1727, 1734, 82 USPQ2d 1385 (2007) and the Federal Circuit's "teaching, suggestion, motivation" test would not teach what is claimed.

Lam '151 does not teach that the secondary layer of the friction material comprises partially carbonized carbon fibers.

Lam '151 does not teach that the secondary layer of the friction material comprises 5% to 35%, by weight, of partially carbonized carbon fibers.

Lam '151 does not teach that the partially carbonized fibers are 65 – 90% carbonized.

The rejection attempts to add to lam what is not there.

The rejection fails to establish a prima facie case of obviousness because the applied prior art does not teach or suggest the key elements of what is claimed. See In re Kahn, 441 F.3d 977, 985-86, 78 U.S.P.Q. 1329, 1335 (Fed.Cir. 2006).

The rejection does not provide any evidentiary basis to support the findings. See In re Ahlert, 424 F.2d 1088, 1091, 165 U.S. P.Q. 418, 420-21 (CCPA 1970).

Smith does not teach carbon fibers in the secondary layer.

Smith does not teach that the secondary layer of the friction material comprises partially carbonized carbon fibers.

Smith does not teach that the secondary layer of the friction material comprises 5% to 35%, by weight, of partially carbonized carbon fibers.

No basis in fact or theory exists for picking and choosing from Lam '151 and Smith as suggested.

Appellants respectfully submit that one cannot rely on hindsight in reaching an obvious determination. It is essential that the decision maker forget what he or she has been taught by the claimed invention. One cannot use piecemeal reconstruction to arrive at the claimed invention. See Golight v. Walmart, CAFC 02-1608, 2004. Also see In re Fine, 837 F.2d 1071 5 USPQ 1596 (CAFC 1988). The rejection ignores the express limitations in the claims. See Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc. 796 F2d 443, 448-449, 240 USPQ 416, 420 (Fed. Cir. 1986).

III. CONCLUSION

Claims 6 – 9, 12 – 13 and 29 are patentably distinct over the combination of references in the recitation of the secondary layer comprising about 5% to about 35%, by weight, of partially carbonized carbon fibers, based on the weight of the fibrous base material, wherein the partially carbonized carbon fibers are 65 to 90%

carbonized.

Lam '897 does not teach carbon fibers in the secondary layer. Lam '897 also does not teach the carbon fibers are partially carbonized carbon fibers that are 65 – 90% carbonized. The rejection attempts to add to Lam '897 what is not there.

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Lam '151 does not teach that the secondary layer of the friction material comprises 5% to 35%, by weight, of partially carbonized carbon fibers.

Lam '151 does not teach that the partially carbonized fibers are 65 – 90%

carbonized.

The rejection attempts to add to Lam what is not there.

Smith does not teach carbon fibers in the secondary layer.

Smith does not teach that the secondary layer of the friction material comprises a partially carbonized carbon fibers.

Smith does not teach that the secondary layer of the friction material comprises 5% to 35%, by weight, of partially carbonized carbon fibers.

No basis in fact or theory exists for picking and choosing from Lam '151 and Smith as suggested.

In view of the foregoing, Appellant respectfully request that The Board reverse the Examiner's rejection. Issuance of a patent on this application therefore is respectfully requested.

Respectfully submitted,

EMCH, SCHAFFER, SCHAUB
& PORCELLO CO., L.P.A.

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PPP/kab

CLAIMS INDEX

6. A friction material comprising a fibrous base material impregnated with at least one curable resin, the fibrous base material comprising a porous primary layer and one secondary layer, the secondary layer comprising partially carbonized carbon fibers on at least one surface of the primary layer, the partially carbonized carbon fibers comprising 3% to about 90% of the surface area of the primary layer, wherein the secondary layer comprises about 5% to about 35%, by weight, of partially carbonized carbon fibers, based on the weight of the fibrous base material, wherein the partially carbonized carbon fibers are 65 to 90% carbonized, and wherein the porous primary layer comprises a plurality of less fibrillated aramid fibers having a freeness of at least about 300 on the Canadian Standard Freeness (CSF) index, and optionally one or more of the following: cotton fibers, carbon fibers, carbon particles, and, at least one filler material.

7. The friction material of claim 6, wherein the less fibrillated aramid fibers have a freeness of about 430 to about 650 on the Canadian Standard Freeness index.

8. The friction material of claim 6, wherein the aramid fibers have average fiber lengths in the range of about 0.5 to about 10 mm.

9. The friction material of claim 6, wherein the filler comprises diatomaceous earth.

12. The friction material of claim 6, wherein the primary layer comprises about 10 to about 50%, by weight, less fibrillated aramid fiber; about 10 to about 35%, by weight, carbon particles; about 5 to about 20%, by weight, cotton fibers; about 2 to about 15%, by weight, carbon fibers; and, about 10 to about 35%, by weight, filler material.

13. The friction material of claim 12, comprising in percent, by weight, about 38 to 40% less fibrillated aramid fibers, about 13 to about 15% carbon particles; about 10 to about 12% cotton fibers; about 4-6% carbon fibers; and about 28 to about 30% filler material.

29. The friction material of claim 6 wherein the primary layer further comprises about 5% to about 35%, by weight, of partially carbonized carbon fibers, based on the weight of the primary layer, and

wherein the partially carbonized carbon fibers of the primary layer are 65 to 90% carbonized.

EVIDENCE INDEX

None.

RELATED PROCEEDINGS INDEX

No decision has been rendered by a court or the Board in any proceedings in related appeals and interferences.